

Remote Control Box
WV-CB700A

Operating Instructions



Panasonic®

Before attempting to connect or operate this product,
please read these instructions completely.

**CAUTION**RISK OF ELECTRIC SHOCK
DO NOT OPEN**CAUTION:**

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Warning:

This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instruction manual, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.



SA 1965

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



SA 1966

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The serial number of this product may be found on the bottom of the unit.

You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No. _____

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CONTENTS

PREFACE	2
FEATURES	2
PRECAUTIONS	2
MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS	3
CONNECTIONS	11
SPECIFICATIONS	12
ACCESSORY	13
OPTIONAL ACCESSORIES	13

PREFACE

A Remote Control Box (RCB) WV-CB700A is used to remotely control either the Color Camera WV-F700 or WV-F500 series for ENG/EFV operation.

Features and functions include white balance setting, iris control, R/B gain control total pedestal control, color bar/camera selection switch, horizontal and subcarrier phase adjustment for gen-lock and intercom level control.

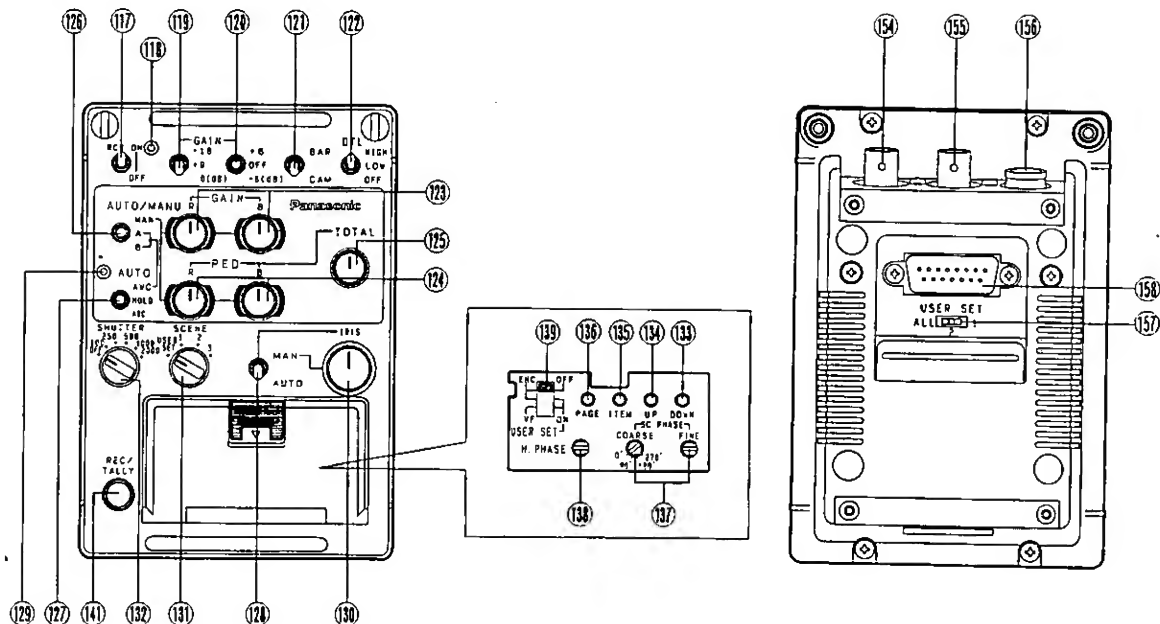
FEARURES

1. The video signal, gen-lock and the camera control from the RCB are available by using the optional RCB cable.
2. Color adjustment can be made by the R and B gain controls.
3. With lens iris control, the auto iris level of zoom lens on the camera can be manually controlled from the RCB.
4. Horizontal and subcarrier phase controls on the RCB can adjust for matching the phase of the gen-lock signal for the system use.

PRECAUTIONS

- Do not attempt to disassemble the unit. There are no user-serviceable parts inside. Do refer any servicing to qualified service personnel.
- Do not abuse the unit. Avoid striking, shading etc.
- Do not use strong or abrasive detergents when cleaning the unit. Do use dry cloth to clean the unit when dirty. In case the dirt is hard to remove, use mild detergent and wipe gently.
- Do not expose the unit to rain or moisture. Do take immediate action if ever the unit do become wet. Turn power off and refer servicing to qualified service personnel. Moisture can damage the unit and also create the danger of electronic shock.
- Use the unit under the conditions where temperature is within 23°F - 113° (-5°C - +45°C) and humidity is less than 90%.

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS



Note: The numbering of the each item is same as the Operating Instructions of WV-F700 or WV-F500 series.

117. Remote Control Box (RCB) Operation Switch (RCB)

When connecting the Remote Control Box to the camera without using the Remote Control Unit, set this switch to ON position. When the RCB is installed in the RCB this switch is inoperative.

118. Remote Control Box (RCB) Indicator (ON/OFF)

This indicator lights while control data is communicated between the camera and Remote Control Unit (RCU) or Remote Control Box (RCB).

119. High Gain Selection Switch (0 dB/+9 dB/+18 dB)

Normally set this switch to the 0 dB position. Positions +9 dB and +18 dB increase the video output amplitude for dark scenes and are equivalent to opening the lens iris 1.5 or 3 F-steps, respectively.

120. 6dB Gain Selection Switch (+6 dB/OFF/−6 dB)

Normally set this switch to OFF position. By the combination of this switch with the High Gain Selection Switch (119), fine adjustment of the gain level is available.

121. Color Bar/Camera Selection Switch (BAR/CAM)

In a system configuration, this switch is used for signal selection between camera mode and color bar mode.

BAR:

A color bar signal is provided from the Video Output Connector on the Remote Control Box (RCB).

CAM:

The actual picture, as picked up through the lens, is displayed.

122. Detail Level Selection Switch (DTL, LEVEL-HIGH/LOW/OFF)

The detail/aperture level can be selected by this switch in three steps. Set this switch to the desired position while observing the sharpness of the picture.

123. Red and Blue Gain Controls (R GAIN/B GAIN)

These controls are used to manually adjust the white balance.

These controls only work when the White/Black Balance Selection Switch (126) is set to the MANU position.

Turn the controls clockwise to increase the red and blue signal levels, and counterclockwise to decrease these levels:

Note:

As these controls employ Digital Processing, the Red and Blue signal levels will be changed in discrete steps.

124. Red and Blue Pedestal Level Controls

(PED, R/B)

The black balance can be set manually by these controls when the White/Black Balance Selection Switch (126) is set to the MANU position. Turn these controls clockwise to increase the red and blue pedestal levels, and counterclockwise to decrease the levels.

Note:

As these controls employ the Digital Processing, these levels will be changed in the steps.

125. Total Pedestal Level Control

(TOTAL PEDESTAL)

This control can adjust the pedestal level of the video signal (luminance) for matching the black level between two or more cameras in a system. Turn this control clockwise to increase the pedestal level, and counterclockwise to decrease the level.

Note:

As this control employs the Digital Processing, this level may be changed in the step.

126. White/Black Balance Selection Switch (AUTO/MANU,MAN/A/B)

This switch is used to select the white balance and black balance modes as follows:

MAN:

The white balance and black balance can be adjusted by the Red and Blue Gain Controls (123) and the Red and Blue Pedestal Level Controls (124).

A: The White Balance can be set automatically by pressing the Auto White/Auto Black Set Switch (127) upwards. The setting is stored in memory A.

B: Similar to A, but the setting is stored in memory B.

Note:

Two white balance setting, one each for different lighting conditions such as indoor and outdoor, may be stored in the two memories, A and B.

127. Auto White/Auto Black Set Switch

(AWC/HOLD/ABC)

This switch sets the white balance and black balance automatically as follows:

AWC:

This position is used for setting the white balance when the White/Black Balance Selection Switch (126) is set to the A or B position of the White/Black Balance Selection Switch. White balance adjustment is required when "AWC A NG" or "AWC B NG" is displayed in the viewfinder or when the Auto Warning Indicator (129) on lights.

HOLD:

In this position, the white and black balances set at the AWC or ABC position can be held fixed, if so desired, for at least one year.

ABC:

This position is used for setting the black balance when the White/Black Balance Selection Switch (126) is set to the A or B position. Black balance adjustment is required when "ABC NG" is displayed in the viewfinder or when the Auto Warning Indicator (129) on the Remote Control Box (RCB) lights.

Note:

Since the black balance adjustment is always automatically performed the picture will flash in the viewfinder and on the monitor screen while the black balance is being set. This flashing indicates that the adjustment is currently being performed and will cease once the adjustment is completed.

128. Lens Iris Selection Switch (IRIS, MAN/AUTO)

This switch is used to set the lens iris of the auto iris servo control zoom lens as follows.

Auto:

The iris level of the lens is controlled automatically.

Note:

Be sure to set the Iris Control Selection Switch on the zoom lens to the AUTO position.

MAN:

The iris level of the lens is controlled to the desired level by using the Lens Iris Control (130).

129. Auto Warning Indicator (AUTO)

This indicator blinks while the white balance or black balance is being automatically set. It goes out once the white and black balances have been correctly set.

This indicator lights when the white or black balance is set improperly. In this case, carry out the automatic setting procedure for white and/or black balance.

130. Lens Iris Control (IRIS)

The iris level of the zoom lens can be manually controlled by turning this control when the Lens Iris Selection Switch (128) is set to the MAN position.

131. Scene Selection Switch (SCENE)

This switch is used to select the most suitable camera conditions, depending on scene conditions, to obtain the best picture possible. Refer to the Operating Instructions of the Color Camera WV-F700 or WV-F500 series.

132. Electronic Shutter Speed Selection Switch (OFF/100/250/500/1000/2000)

This switch is operative only when a camera featuring the electronic shutter is connected with this control box.

When fast-moving objects are shot at the slow shutter speeds typically found in conventional cameras they will appear blurred. The camera, however, features an electronic shutter function from which the following speeds can be selected: 1/100, 1/250, 1/500, 1/1000 or 1/2000 of a second. As a result, blur-free recording of high-speed action, such as car racing, golf swings, gymnastics, birds in flight is possible.

The selection of shutter speed is made by pressing this switch.

OFF:

Set this switch to this position when recording normally with standard shutter speeds.

1/100, 1/250, 1/500, 1/1000, 1/2000:

Choose the suitable shutter speed from these.

133. Down Switch (DOWN)

This switch is used to decrease the set value in the item pointed out by the cursor.

134. Up Switch (UP)

This switch is used to increase the set value in the desired item pointed out by the cursor.

135. Item Switch (ITEM)

This switch is used to choose the item in the set-up menus.

136. Page Switch (PAGE)

This switch is used to choose the desired set-up menu from the four menus.

137. Subcarrier Phase Coarse and Fine Controls (SC PHASE COARSE/FINE)

These controls allow for adjustment of the camera signal subcarrier phase from 0° to 360°, to match the phase with that of the burst signal at the Gen-lock Input Connector on the RCU in a system configuration.

The COARSE control adjusts the subcarrier phase from 0° to 360° in 90° steps, while the FINE control allows for continuous fine adjustment over a range of 90°

138. Horizontal Phase Control for Gen-lock (H PHASE)

The horizontal phase of the camera signal can be adjusted to match the horizontal phase of the signal at the Gen-lock Input Connector on the RCU.

139. ENC/VF Selection Switch (ENC/VF, OFF/ON)

This switch selects Encoder output or EVF (black and white) output from the Video Output Connector and whether the User Set Function is available as follows:

1. Switch set to position #1:
Encoder is output from the Video Output Connector on the RCB and the User Set function is not available.
2. Switch set to position #2:
Encoder is output from the Video Output Connector on the RCB and the User Set function is available.
3. Switch set to position #3:
EVF (black and white) signal is output from the Video Output Connector on the RCB, User Set function is available and the User Set menu is displayed on the monitor.

141. Tally Indicator (REC/TALLY)

When the Remote Control Box (RCB) is used in conjunction with a Special Effects Generator, the Tally Indicator inside the viewfinder as well as this indicator on the Remote Control Box (RCB) will light to indicate that recording is in progress.

Note:

When using the Remote Control Box (RCB) in the Remote Control Unit (RCU), the recording start/stop function is not available.

154. Monitor Output Connector

As this connector is in parallel connection with the VIDEO 2 OUTPUT Connector on the RCU, do not output the signal simultaneously from both connectors.

155. Gen-lock Input Connector of Remote Control Box

This connector is used to input the gen-lock signal to this control box when using the Remote Control Box extended from the Remote Control Unit.

156. Remote Control Unit Extension Connector

This connector is used to extend this control box from the Remote Control Unit or from the camera by using the optional RCB cable (WV-CA10B25/WV-CA10B50).

The maximum cable length for the extension is 300 ft (100m).

Refer to the following table.

Cable length	(ft)	6	75	150	300
	(m)	2	25	50	100
Decrement		10%	15%	20%	30%

Note:

As the video level is changed by using various cable lengths, under certain conditions it may be out of the specification for the WV-F700 or WV-F500 series.

157. Remote Control Unit Connector

This connector is used for directly connecting with the Remote Control Box Connector on the Remote Control Unit.

158. User Set Switch (USER SET)

By setting this switch when the Scene Selection Switch (131) is set to the USER SET position, the page selection of the set up menus is available as follows.

All:

All the pages (page1-page4) in the set up menu are displayed by setting this switch to this position.

- 1: Page 1 and 2 are displayed by setting this switch to this position.
- 2: Only Page 3 is displayed by setting this switch to this position.

Refer to "THE USER SETTING OPERATION" on Operating Instructions of the Color Camra WV-F700 or WV-F500 series.

CONNECTIONS

■ Connection with the Camera

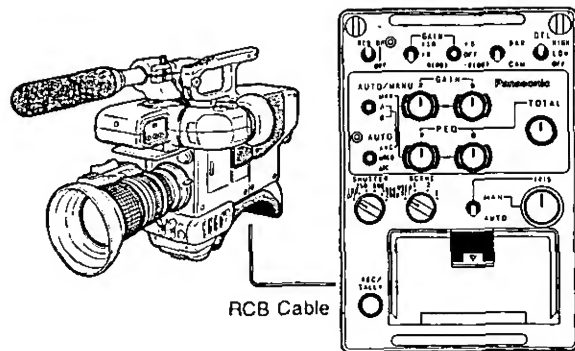
Connect the Remote Control Box Connector on the Camera Head to the Remote Control Unit Extension Connector (156) on the Remote Control Box by using the optional RCB Cable WV-CA10B25 or WV-CA10B50.

Note:

In the following system connection, the video signal from the Monitor Output Connector on the Camera Head has priority of the video signal over the Monitor Output Connector (154) on the Remote Control Box, so the picture is not displayed on the monitor connected to the Remote Control Box.

The decrement of the video signal for the cable length is shown in the following.

The cable length	Decrement
2 m:	Approx. 10%
25 m:	Approx. 15%
50 m:	Approx. 20%
100 m:	Approx. 30%



OPERATING PROCEDURE

Refer to the Operating Instructions of the Color Camera WV-F700 or WV-F500 Series for details.

SPECIFICATIONS

Video Output :	1.0 Vp-p NTSC composite/75 ohms × 1 (BNC connectors)
Gen-lock Input :	1.0 Vp-p NTSC composite or black burst signal/75 ohms × 1 (at camera head operating) (BNC connectors)
Intercom Jack :	M-6
Maximum Cable Length :	Approx. 80 ft (25m) with the optional RCB Cable WV-CA10B25. Approx. 160 ft (50m) with the optional RCB Cable WC-CA10B50.
Switches :	RCB Operation, High Gain Selection, 6 dB Gain Selection, Color Bar/Camera Selection, Detail Level Selection, White/Black Balance Selection, Auto White/Auto Black Set, Lens Iris Selection, Scene Selection, Electronic Shutter Speed Selection, Down, Up, Item, Page, ENC/VF Selection, User Set Switch
Controls :	Red and Blue Gain, Red and Blue Pedestal Level, Total Pedestal Level, Lens Iris, Subcarrier Phase Coarse and Fine, Horizontal Phase for Gen-lock
Ambient Operating Temperature :	23°F - 113°F (−5°C - +45°C)
Ambient Operating Humidity :	Less than 90 %
Dimensions :	3-9/16"(W) × 5-3/16"(H) × 2"(D) 90(W) × 131(H) × 51.5(D) mm
Weights :	0.8 lbs (0.37 kg)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

ACCESSORY

RCB Cable (Approx. 7 ft (2m)) 1 pc.

OPTIONAL ACCESSORIES

Color Camera WV-F700 or WV-F500 series

Remote Control Unit WV-RC700A

RCB Cable WV-CA10B25/WV-CA10B50

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